CLAIMS:

1. A method for repairing a puncture in a normally pressurized vehicle tire with cement and an injection tube, comprising the steps of:

inserting said injection tube from outside said tire into the puncture;

pushing said cement through said injection tube and said puncture to reach inside said tire;

removing said injection tube; and

allowing the cement that was injected to set at least partially before using said tire.

2. A method according to claim 1 wherein the step of inserting the injection tube from outside said tire into the puncture is performed without the injection tube reaching inside said tire.

3. A method according to claim 1 wherein the step of pushing the cement is performed sufficiently to form inside said tire a flared head that is substantially wider than the puncture.

4. A method according to claim 1 wherein the step of removing said injection tube is performed while cement is being pushed through said tube in order to fill with cement portions of said puncture vacated by said tube.

5. A method according to claim 1 employing complementary constituents and a static mixer, and comprising the step of:

mixing the complementary constituents with said static mixer to form the cement just as the cement is being pushed into said tube and said puncture.

6. A method according to claim 5 comprising the step of:

discarding the injection tube and the static mixer after the injection tube

is removed from said tire.

7. A method according to claim 5 employing a dispenser with dual barrels containing said complementary constituents, and comprising the step of:

pushing only some of the constituents in the barrels through said injection tube into the puncture in order to allow repeated use of the barrels; and

replacing the injection tube and static mixer each time after the injection tube is removed from said tire.

8. A repair device for repairing a puncture in a normally pressurized vehicle tire, comprising:

a dispenser containing a cement adapted to adhere to said vehicle tire;

an injection tube adapted to be mounted on said dispenser and sized to fit into the puncture without reaching inside said vehicle tire;

a plunger slidably fitted in said dispenser for pushing said cement through said injection tube and through said puncture.

9. A repair device according to claim 8 comprising:

a cap secured on said dispenser and being removable to allow mounting of said injection tube on said barrel.

10. A repair device for repairing a puncture in a normally pressurized vehicle tire, comprising:

a dispenser with dual barrels containing a pair of separate constituents adapted to form a cement that can adhere to said vehicle tire;

a static mixer adapted to be mounted on said dispenser for receiving and mixing said pair of constituents to form said cement;

an injection tube mounted on said static mixer and sized to fit into the puncture; and

a pair of piston heads slidably fitted in said dual barrel for pushing said pair of constituents through said static mixer to form the cement for injection through said injection tube and into said puncture.

11. A repair device according to claim 10 wherein said static mixer is removably attached to said dispenser for replacement after depression of said piston heads.

12. A repair device according to claim 10 comprising:

a cap secured on said dispenser and being removable to allow mounting of said injection tube on said dispenser.

13. A repair device according to claim 10 wherein said static mixer comprises a plurality of blades with a helical twist.

14. A repair device according to claim 10 wherein said static mixer comprises an end to end plurality of coaxial blades each with a helical twist of a predetermined angle, a phase shift of 90° existing at transitions between a preceding one to a succeeding one of the coaxial blades.

15. A repair device according to claim 14 wherein said static mixer includes a tubular housing containing said coaxial blades, said tubular housing having a distal end supporting said injection tube, and a proximal end adapted to be removably secured to said dispenser.

16. A repair device according to claim 10 wherein said dispenser comprises:

a handle with a reciprocatable trigger, said dual barrel being adapted to be removably attached to said handle;

a ratchet mechanism coupled to said trigger for pushing said piston heads

into said dual barrel in response to reciprocation of said trigger.

17. A repair device according to claim 10 wherein said cement is curable and has a pre-cure viscosity sufficiently high to prevent expulsion of said cement by pressure in said tire before curing of said cement.

18. A repair device according to claim 17 wherein said cement cures in less than five minutes.

19. A repair device according to claim 17 wherein said pair of constituents form said cement, which cures into a polyurethane.

20. A repair device according to claim 10 wherein said injection tube has at least one side vent.

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